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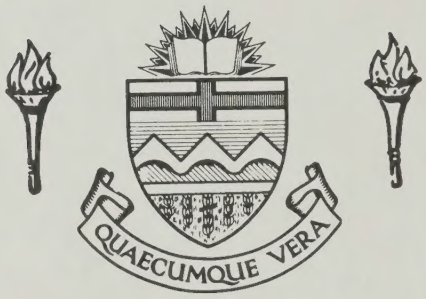

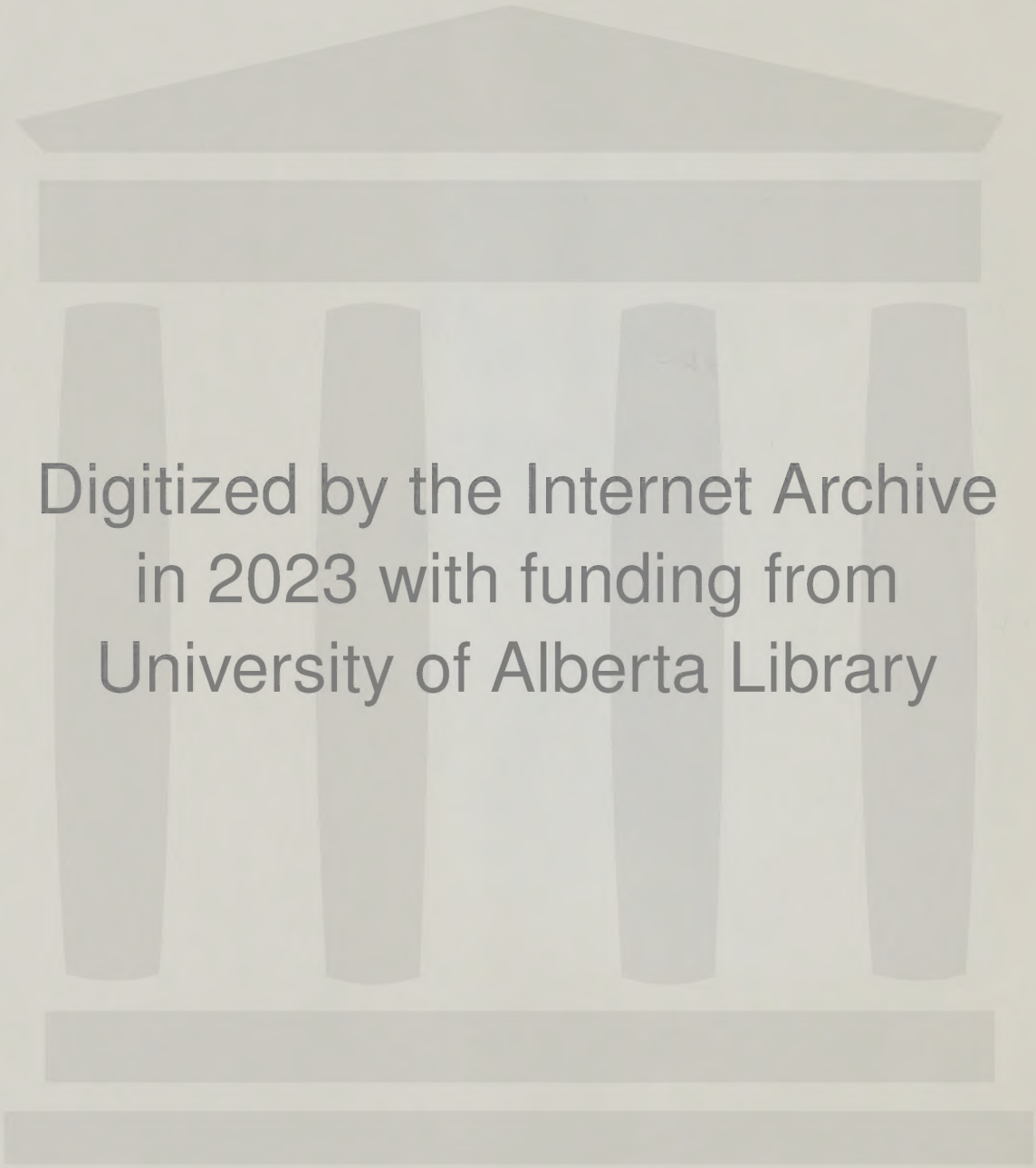
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# THE UNIVERSITY OF ALBERTA

# SUICIDE AND MARITAL STATUS IN ALBERTA, 1968-1973

by

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A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE

OF MASTER OF ARTS

DEPARTMENT OF SOCIOLOGY

EDMONTON, ALBERTA

FALL, 1982

SUICIDE AND MARITAL STATUS IN ALBERTA,

1968-1973

ABSTRACT

Based upon suicide data collected from 1,147 psychological autopsies by a special investigative Task Force in the Province of Alberta, Canada, 1968-1973, this thesis examines the association between marital status and psychological and physiological illness behavior variables. Focusing upon people who were married, Durkheimian theory states that marriage provides certain degrees of matrimonial immunity to suicide. This immunity is generally interpreted to mean physical and psychological well-being through the involvement of significant others who provide security and emotional support. However, among the married suicide population is a relatively large percentage that appears to be more prone to a history of mental disorders than any other marital status. Comparing the marital statuses, the married group is approximately average for receiving treatment from a doctor or hospitalization for mental disorders. People who were married report a greater likelihood of seeking medical care and hospitalization for

physical ills than any other marital status. Also, middle-aged married men are strongly associated with having little or no relationships with significant others.

When age and sex controls are introduced, the relationships between marital status and the illness behavior variables tend to disappear. However, the reporting of no relationship is significant in that it supports the hypothesis that people who were married would report similar if not higher measures of illness behavior. Consequently, the findings fail to support the Durkheimian hypothesis that all people who are married enjoy matrimonial immunity to suicide. For some individuals marriage may fail to operate as a shield against the pressures of societal living and may instead serve as a framework for suicide. While this alone does not fully explain the complexity of an individual's rationale for destroying himself, it does serve as an indicator for potential suicide among the married group of Alberta suicides.

ACKNOWLEDGEMENTS

There are several people who have been influential in helping me complete my graduate program. To Dr. Herb Northcott who served as my committee chairman I will be forever grateful. He invested considerable time and energy in my work. Always willing to provide guidance, support, and encouragement, he has stood by me all these years.

To Dr. George K. Jarvis I also wish to express my deeply felt appreciation. It was Dr. Jarvis who assisted in initiating my thesis topic and patiently served as a committee member along with Dr. Jim Creechan and Dr. Ben Sinha.

The data for this study, which consists of all suicides within the Province of Alberta 1968-1973, were collected by a special Suicide Task Force. I wish to especially thank Dr. Menno Boldt, University of Lethbridge, and Dr. George K. Jarvis, University of Alberta and a member of this Task Force, for making the data set available.

Finally, but most importantly, I want my dear wife Margo to know how much I have appreciated her patience, encouragement, and unfaltering support. Without her I would not have succeeded.

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# CHAPTER I

# INTRODUCTION

## Statement of the Research Problem

One perpetual social problem that has been dealt with in literally thousands of writings is the phenomenon of suicide. Perhaps the most significant contribution to this area is the classical study, *Le Suicide*, by Emile Durkheim, the French sociologist [Durkheim, 1966].

Unfortunately the relevance of Durkheim's work has frequently been neglected by more noted researchers. Sociologists Jack P. Gibbs and Walter T. Martin tested an extention of Durkheim's theory of social integration but overlooked the greater part of his theory [Gibbs & Martin, 1964]. Ruth Cavan provided but a fleeting glance at Durkheim's contribution [Cavan, 1965]. The reviews of Talcott Parsons and Harry Alpert merely provide a skeletal overview of his theoretical constructions [Alpert, 1961]. Andrew Henry and James Short, Jr., while comparing suicide to fluctuations in business and economic cycles, address but a minor area of Durkheim's theory of anomic suicide [Henry & Short, 1954].

It is disconcerting that contemporary suicide research frequently ignores some of its major sociological underpinnings. One interesting dimension of suicide examined by Durkheim is the association of marital status with self-destructive behavior. He proposed that "suicide varies inversely with the degree of integration of domestic society" [Durkheim, 1966, p. 208].

Durkheim believed that individuals are integrated into society to varying degrees. This notion of integration refers to the ability of an individual to operate within the given social structure of a society without developing considerable negative side effects. For some, society does not afford enough integration which often leaves the individual unsure of his or her proper roles and functions within the community.

At the other extreme, Durkheim described persons who suffer from over-regulation. These individuals are usually caught up in the mechanics of everyday living and fall victim to the over-abundance of laws, rules, and regulations which forces them to feel stifled and oppressed. Consequently, persons found in either extreme are likely to be candidates for suicides. In the Durkheimian vernacular these are "social suicides" because their deaths are directly related to their inability to properly integrate into society.

In basing his assumption that social integration is pertinent to "social suicide," Durkheim developed a

specific type of theoretical orientation. For example, he found suicide rates vary inversely with the degree of integration of the religious society. More specifically then, Catholics have a higher clergy-lay membership ratio than Protestants. Consequently, Catholics tend to be more integrated into their religion than Protestants. Thus, Protestants have higher ratios of suicide than Catholics. Durkheim evaluated a multitude of variables in a like manner.

In regards to those who are married, Durkheim broadly defined integration to mean the overall strength of the marriage relationship. The consequences of improper integration may affect either or both physiological or psychological well-being. For the purpose of this thesis the term "integration" is dealt with by its application to physiological and psychological well-being and marital status.

The terms "physiological" and "psychological well-being" have interested researchers for many years. One explanation for a person's general well-being has in recent years been examined by those interested in the phenomenon of stress.

A person's well-being according to research may be directly influenced by stress [Caplan, 1971; Chan, 1977; Friedman, Rosenman, Jenkins, 1967; House, 1974]. Stress, a complex process of interaction between individuals and their situations, may be a generic cause of many diseases

rather than a specific cause of only one [House, 1974; Syme, 1976]. Stressful situations generally arise where the demands made surpass present abilities or where clear obstacles exist to fulfilling strong needs or values [McGrath, 1970].

Response to stress varies from person to person. While some appear to successfully cope with stress with apparently minimal negative effects, others are not as fortunate. Facial tics, insomnia, ulcers, headaches, and high blood pressure have all been attributed to the effects of stress [McGrath, 1970; Holmes & Rahe, 1967]. However, some research indicates that stress plays a significant role in more serious ills such as coronary heart disease and mental disorders [Friedman, et al., 1967; Matsumoto, 1970; House, 1974]. In his study of coping with stress, Karl Menninger (1972) suggests that some individuals unable to positively deal with stress become manic, depressed, schizophrenic, or paranoid. If treatment is not made available, he concludes, then death, often by suicide, is the final result.

Durkheim's study of suicide suggests how society might induce enough stress among individuals to cause them to take their lives. His analysis identifies specific marital groups and reasons for variation in suicide rates. He discovered that people who are married generally have lower rates of suicide. He referred to this variation as "matrimonial immunity" and suggested that strong familial

roles, the presence of children, and the attached responsibilities of marriage act as constraints against suicide [Durkheim, 1966, pp. 205-210]. Other explanations for the notable differences in suicide rates indicating marrieds are less likely to kill themselves are that they appear to be happier and less stressed than non-marrieds [Glenn, 1975]. Similarly, married persons tend to be healthier than non-marrieds [Retherford, 1976; Verbrugge, 1977]. Marriage, it appears, confers a resistance to illness and/or deters these persons from involving themselves in activities that carry high risks of illness or injury. It is also believed that married people have more social support for health problems which in turn acts as a favorable influence toward their recovery [Carpenter, Ousterhouse, & Perry, 1976]. In part it is the responsibility woven into the marriage bond that dissuades individuals from maintaining risky lifestyles.

On the other hand, non-married people, by using drugs more, driving with less caution, maintaining substandard nutritional levels, and engaging more frequently in health-threatening activities are more vulnerable to acute or chronic illnesses whether they be physical or mental. Similarly, marital change of any kind produces stressful situations, especially when a marriage is dissolved such as in divorce, separation, or death [Holmes & Masuda, 1974]. It is believed that people often attempt to cope with their stress through alcohol, smoking,

extreme dietary habits, and other activities deemed to be high health risks. Generally, non-married persons tend to engage in these behaviors significantly more than married people [Verbrugge, 1977].

The causal ties among stress, illness, and suicide have yet to be concretely determined, but the former discussion suggests that non-married persons are more likely to report a greater prevalence of illness behavior than married persons. Returning to Durkheim's position, we see that he explained the more stable, healthier lifestyle of the married group as primarily due to the strength of the social bond or relationship within marriage. Consequently, the better persons are integrated into marriage the less likely they are to be involved in high health-risk behavior, and the more resistance they are likely to have makes them less vulnerable to acute or chronic illnesses.

All married persons, however, are not immune to illness or suicide. Actual statistics indicate that married people not only kill themselves but in some age categories even report higher rates of suicide than non-marrieds [Gibbs, 1968, p. 66]. It appears that marriage does not provide the same immunity to suicide to all ages within the marriage group.

First, we may state that if married people kill themselves less often than non-marrieds because they are more integrated, stable, and happy, then the opposite may

also hold true. If married people are not stable, not well-integrated, and not happy, then they may lose their matrimonial immunity and thus become more prone to suicide. Consequently, these married people should also report, as do non-marrieds, a higher prevalence of poor health both physically and mentally.

Second, these less stable married people should exhibit a penchant toward a more hazardous lifestyle. For example, it is reasonable to expect that such individuals would begin or continue to indulge in debilitating habits such as smoking, alcohol, poor diet, overeating, or careless driving practices. Consequently, they become more prone to experience even yet more serious events necessitating medical treatment or hospitalization for physiological or psychological impairments.

In light of this discussion we should expect to find specific manifestations of stress among those who commit suicide. Moreover, as the act of suicide in many cases appears to be the final product of excessive stress, a higher prevalence of illness behavior may be reported among its victims. For Durkheim, part of the explanation for such behavior is determined by a person's marital status. Those persons who are not married and kill themselves are expected to reflect illness behavior as they tend to be less integrated into societal living. People who are married reflect less illness behavior as a result of better societal integration. However, for

people who are married and kill themselves the opposite effect should occur. This group should also report, as do people who are not married and kill themselves, a high prevalence of poor psychological and physiological well-being. Stated as an hypothesis:

> In comparison to unmarried suicides, people who are married and commit suicide will report similar if not higher measurements of illness behavior.

We should expect, in addition, to find variation by age and sex. Just as suicide rates generally tend to increase with age, prevalence of acute illness tends to decrease with age. As a group, older people suffer disproportionately from chronic conditions, especially mental illness [Atchley, 1977]. Although there is minimal increase in functional disorders, research has indicated a marked increase among the older population who suffer from mental illness due to serious organic disorders [Busse & Pfeiffer, 1969]. Also, males report higher rates of mental illness and institutionalization than females [Atchley, 1977]. Age and sex are therefore relevant controls.

# CHAPTER II

## DURKHEIM AND HIS GENERAL THEORY ON SUICIDE

Emile Durkheim (1858-1917), born in Epinal, France, of Jewish parents, has been cited as the "father of modern sociology." His most notable contributions are (in order of publication): *The Division of Labor in Society (De la Division du Travail Social)* in 1893; *The Rules of Sociological Method (Les Regles de la Method Sociologique)* in 1895; *Suicide (Le Suicide)* in 1897; and *The Elementary Forms of Religious Life (Les Formes Elementaires de la Vie Religieuse)* in 1912.

It was Durkheim who wrote on "social facts" and describes them as "real things" such as family, religion, government, and public conscience. Unlike "individual facts" described by Durkheim, social facts are found only in social settings [Alpert, 1961, pp. 115-158].

> A social fact is every way of acting, fixed or not, capable of exercising on the individual an external constraint; or again, every way of acting which is general throughout a given society, while at the same time existing in its own right independent of its individual manifestations [Durkheim, 1938, p. 13].

Durkheim indicates that social facts are external and constraining, collective representations through associations, and/or individual thoughts and actions.

> If one can say that, to a certain extent, collective representations are exterior to individual minds, it means that they do not derive from them as such but from the association of minds, which is a very different thing. No doubt in making of the whole each contributes his part, but private sentiments do not become social except by combination under action of the *sui generis* forces developed in association. In such a combination, with the mutual alterations involved, they become something else. A chemical synthesis results, which concentrates and unifies the synthesized elements and by that transforms them. Since this synthesis is the work of the whole, its sphere is the whole. The resultant surpasses the individual as the whole part. It is in the whole as it is by the whole. In this sense it is exterior to the individuals. No doubt each individual contains a part, but the whole is found in no one. In order to understand it as it is one must take the aggregate in its totality into consideration. It is that which thinks, feels, wishes, even though it can neither wish, feel, nor act except through individual minds [Durkheim, 1953, pp. 25-26].

Thus Durkheim believed that individuals are to be found within the collective conscience which is the totality of beliefs and sentiments maintained by society [Durkheim, 1960, p. 396].

Durkheim viewed these concepts in terms of solidarity or cohesion. Thus society would be studied as an integrated whole, structured with a moral code (mechanical solidarity), or a complex division of labor where high interdependence exists (organic solidarity) [Parsons, 1937, p. 311].

For Durkheim, constraint or regulation has moral justification as it contributes to solidarity. Without constraint or regulation, "anomie" or deregulation occurs [Durkheim, 1966, pp. 245-254].

Secondly, if moral regulation was excised from society, inevitably society would become defunct and mankind would live in perpetual chaos. This regulation, suggests Durkheim, is founded and perpetuated through the occupational group.

> What we especially see in the occupational group is a moral power capable of containing individual egos, of maintaining a spirited sentiment of common solidarity in the consciousness of all the workers, of preventing the law of the strongest from being brutally applied to industrial and commercial relations [Durkheim, 1960, p. 10].

Similarly, Durkheim identifies regulatory influences in major institutions such as the family, religion, and education. Thus society exists and progresses via social control which is monitored by the collective conscience.

## Marital Status, Regulation, and External Restraints

Durkheim's work, *Le Suicide*, considered a monumental classic in sociological research, categorized suicide as a social phenomenon. In other words, suicide rates are considered social facts or a definite part of the society under observation. Thus variations in suicide rates may be accounted for by observing the differing social characteristics of the groups under study.

> Moreover, by thus restricting the research, one is by no means deprived of broad views and general insights . . . . One must not believe that a general condition can only be explained with the aid of generalities . . . . Suicide as it exists today is precisely one of the forms through which the collective affection from which we suffer is transmitted; thus it will aid us to understand this [Durkheim, 1966, p. 4].

Durkheim, interested in social suicides, evaluated social factors that may be related to self-destructiveness. Inevitably he dealt with marital status and the notable differences in suicide rates. He found that within each of the marital statuses there exists a measurable amount of immunity or lack of immunity to suicide. Such immunity he termed as the "coefficient of preservation." Looking at married persons, Durkheim found that from about twenty years upward, married persons regardless of their sex enjoyed this coefficient of preservation, which indicated that they are less likely to commit suicide than the singles group.

Referring to sex and age, he points out that the coefficient of preservation of married people varies with the sexes and that early marriages have a negative influence on suicide, especially for men [Ibid., pp. 259-276].

One confirmation of Durkheim's hypothesis is provided by the 1959 U.S. Vital Statistics indicating that from age 25 onward, marriage acts as a defensive wall against suicide, although such protection was found to be less for females than for males [Maris, 1969, p. 108]. Why should marriage protect females less than males? According to R. W. Maris in his book, *Social Forces in Urban Suicide*, "It is primarily that marital problems are the major cause of suicide and suicide attempts among females, while for males work problems, not marital, are associated with suicide" [Ibid., p. 111].

Durkheim concludes not only that the family is the essential factor in the immunity of married persons but found evidence to indicate that the larger the family, the less likely the chance of suicide. For example, he found that a million husbands with children annually show during this period, 1887-91, only 336 suicides. In comparing these figures to those of men without children, Durkheim found that with children, the coefficient of preservation is almost doubled. In fact, his results

indicate that as suicides diminish, family density regularly increases [Durkheim, 1966, pp. 185-200].

The notion that a family is more greatly protected from suicide in terms of how strongly it is constituted does not only refer to the actual density of the family. Durkheim goes a step further by suggesting that strength in the constitution of a family is also derived from how well that family is integrated. Similarly, the larger the family, the more regulation of the individuals within the family. From this, Durkheim formulated the following proposition: "Suicide varies inversely with the degree of integration of domestic society"[Ibid., p. 208]. In terms of familial roles such as spouses, children, and relatives, each serves a function to minimize feelings of anomie or egoistic tendencies.*

The notion that as external constraints are formulated the rates of suicide shall decrease proportionately seems to be reasonable, at least to a point. Using the integration-regulation theory, the order of marital status where married persons, although varying by age, are generally at the top with the lowest rates of suicide, followed by widowed, then divorced, and lastly the singles, is applicable to this model.

* Durkheimian Vernacular: Terms used in his classification of suicide. Anomie: Referring to a breakdown in regulation of ones lifestyle, i.e., the inability to handle certain crises. Egoistic: referring to someone who drifts away from the group seeking individualism rather than allowing oneself to be integrated into the collective conscience.

Durkheim's proposition is supported also by studies done in the United States. For females in the U.S., the rates are lower for married women in all age groups except the youngest (under 24) and the oldest (over 65). However, Durkheim explains that childless wives commit suicide half again as often as unmarried women of the same age. He suggests then, that married women tend to have lower suicide rates than unmarried women, not because of the conjugal society they live in, but rather due to the family society, i.e., the presence of children [Durkheim, 1966, pp. 188-189]. Rates for widowed and, especially, divorced are often three to four times those of married women.

Married males maintain a lower suicide rate than single males in all age groups with the exception of those under twenty. Durkheim found that some age categories (20-to-25 and 30-to-40) of married males have rates less than half those of single males. Some age categories of married males have rates less than half those of single males. In relation to divorced males, married men in Canada, Wales, England, Sweden, and the United States have lower suicide rates. In some age groups, rates for widowed or divorced males were nearly seven times higher than those of married men in the same age group [Roberts, 1975, p. 36].

Durkheim's work suggests that widowed have a higher coefficient of preservation than the unmarried or never-married [Durkheim, 1966, p. 196]. The Chicago and United States Vital Statistics again confirm the hypothesis for widowed compared to the never-married; the hypothesis only holds for males and females ages 65 and over, and for single females ages 25 to 34 [Dublin, 1963, pp. 22-29].

Explanations for such findings may be somewhat varied. Divorce can be viewed as extremely disorganizing and stressful. As compared to the widow, the divorcee may experience more isolation and anomie. People tend to view divorce in terms of personal problems and inhibitions, whereas the widow adjusts to a natural misfortune. Whereas the divorcee may suffer pangs of guilt, the widow may experience relatively little. Where children are involved, they are usually brought closer to the widow, but separated from at least one parent in divorce. Finally, the widow has more "viable, consanguinal, familial relationships than either the divorcee or never-married person"[Maris, 1969, pp. 113-114].

The indication that marriage seems to create added strength and stability and thereby fewer suicides than in other marital status categories is encouraging. However, the act of marriage itself is not the saving

grace, but rather the formulation of strong positive bonds within that relationship. Durkheim reflected upon those entering marriage by saying,

> Those who enter it are not an aristocracy of birth; they do not bring to marriage, as an existing quality, a temperament disinclining them to suicide, but acquire it by living the conjugal life [Durkheim, 1966, p. 193].

However, Durkheim also suggested that those who entered marriage were subject to, in some degree, matrimonial selection. For example, those who are not physically or mentally able usually find themselves discarded from the ranks of the eligible.

## Summary

Social facts represent the real existence of society. Social solidarity within society is maintained by constraint and regulation. Great emphasis is placed by Durkheim on the regulatory ability of the family.

Immunity from suicide is related to the particular marital status of a person. For example, when a disruption in domestic relationships exists, the result is often an imbalance in the individuals' lifestyles. Describing these types of suicides as anomic, Durkheim cited divorced persons as typical examples. External restraints may inhibit or encourage the suicidal act depending upon the degree of integration into married life or society.

# CHAPTER III

## POST-DURKHEIMIAN RESEARCH AND THEORY

Although Durkheim's work is considered a landmark in employing statistical associations with suicide, he certainly was not the first to research the phenomenon. Several relationships between demographic, geographic, and social variables had previously been related to suicide rates by social scientists such as Falret (1822), Guerry (1833), Quetelet (1835), Wagner (1864), Legoyt (1881), Masaryk (1881), and Ferri (1883). Variations in suicide rates were found pertaining to sex, age, marital status, and season. Similarly, various observations linked rates to periods of economic depression and rapid social change.

Since the time of Durkheim's work on suicide, literally thousands of research projects, books, and articles have been addressed to its study [Farberow, 1972]. However, the writer feels that it would be advantageous to review in this chapter the contributions of social scientists that have generated insight regarding marital status and suicide. Of these works, perhaps the most notable are those of Jack Gibbs and Walter Martin

in their empirical examination of the effect of "status integration" on suicide [Gibbs & Martin, 1964], and Andrew Henry and James Short, Jr., in their study of the strength of the relational system to suicide [Henry & Short, 1954]. Concluding this chapter, the writer has provided a discussion regarding the validity and reliability of suicide statistics.

## Gibbs & Martin: Status Integration

The concept of "social integration," derived from Durkheim's more general term, "solidarity," was partially examined by Gibbs and Martin in their examination of the effect of "status integration" on suicide [Gibbs & Martin, 1964]. Using various mathematical and statistical models, these men tested Durkheim's generalization that most "social suicides" vary inversely with the amount of social integration [Durkheim, 1953]. The idea of status integration was used by Gibbs and Martin in analyzing the variability in immunity to suicide by marital status.

The first observation made by Gibbs and Martin suggests that if married persons enjoy immunity to suicide, then such immunity is relative to age. By observing the age scale, considerable variation of immunity is demonstrated to such a point that other marital statuses actually exhibit lower suicide rates than that of married persons. Such variability in immunity to suicide by marital status, they propose, is basically a function of status integration [Gibbs & Martin, 1964, pp. 86-87].

Restating this as a formal hypothesis, they write,

> Within each age group in the United States, there will be an inverse relationship between measures of the integration of marital status with age and suicide rates by marital status [Ibid., p. 93].

To test this hypothesis, population figures were taken from the U.S. Census of Population for 1950, and the U.S. suicide rates for 1949 to 1951. Using a scatter diagram, the results supported the hypothesis by showing that within an age group, the marital status with a low suicide rate had a high measure of status integration [Ibid.].

Gibbs and Martin go on to explain that such measures refer to the degree to which individuals in a society do or do not conform to a pattern in their occupancy of statuses. It is possible though, as they suggest, that a low measure may only reflect that individual choice in that particular society is notably prevalent. Citing from Erich Fromm's work, they suggest that if such a prevalence is accompanied by a growing sense of moral aloneness or isolation, then such a society might still have high rates of suicide [Ibid.].

Gibbs and Martin also provide an interesting approach to Durkheim's idea of coefficients of preservation. As we have previously noted, Durkheim emphasized the idea that having children tends to increase the coefficient of preservation or immunity to suicide. Using the status integration hypothesis, Gibbs and Martin suggest that although children are an important factor, it is not because they provide variability in the

immunity of married persons, but simply because they determine one of a person's statuses.

> In contrast to Durkheim, the present theory holds that there is nothing inherent in any status that will provide invariable immunity to suicide; it is always a matter of the context of a status. This being the case, one would expect that the immunity of married persons is relative [Ibid., pp. 98-99].

## Henry & Short: Strength of the Relational System

Henry and Short identified three main concepts pertaining to suicide: (1) the frustration-aggression hypothesis, (2) status, and (3) external restraint. For our purposes only, the discussion relevant to the relational system of the marital status, extracted from these concepts, is included.

In dealing with marital status as a correlate of suicide, Henry and Short incorporate it into a variable which they call "strength of the relational system" [Henry & Short, 1954, p. 16]. They define this variable, which also contains other structural correlates such as urban-rural residence and ecological distribution, as the degree of involvement in social or cathectic relationships with other persons. State Henry and Short,

> We assume that the relational system of the married is stronger, on the average, than is the relational system of the unmarried, and that the degree of involvement in social relationships with other persons is greater among residents of rural areas than among residents of urban areas [Ibid].

Using these assumptions, they were able to construct their hypothesis that suicide varies inversely with the strength of the relational system. The proposition that developed was "a positive relation between suicide and status and a negative relation between suicide and strength of the relational system."

In restating this proposition, they suggest that when external restraints are weak, aggression generated by frustration will be directed against the self (suicide), and when external restraints are strong, aggression generated by frustration will be directed outwardly against another person (homicide) [Ibid., pp. 16-18].

These authors emphasize that low rates of suicide are attributed to married persons because of a strong relational system within the boundaries of marriage. They go further to point out that there exists a marked difference between rural and urban family life. While rural life emphasizes strong control by the community, urban life often provides anonymity and impersonality [Ibid., pp. 75-78]. It should be noted, however, that such a contrast may not be as marked today as it was 25 years ago when they first published *Suicide and Homicide*.

In summary, Henry and Short have placed their emphasis on the importance of strong relationships. It appears that meaningful and reciprocal relationships are able to inhibit the increase of suicide rates.

## Suicide Statistics

Having reviewed the literature pertinent to marital status and suicide, it is equally important to have an understanding of the data from whence empirical findings and so many theoretical rationales evolve.

> The governments are very keen on amassing statistics. They collect them, raise them to the *n*th power, take the cube root and prepare wonderful diagrams.
>
> But you must never forget that everyone of these figures comes in the first instance from the village watchman, who just puts down what he damn pleases.
>
> *Sir Josiah Stamp*

Suicide statistics have yielded some very interesting facts. For example, sane persons have higher suicide rates than insane persons [Durkheim, 1966; Stengel, 1969; Patel, 1973]; a greater portion of those who attempt suicide live alone [Wold, 1970]; physically ill people tend to commit suicide at a higher rate than healthy people [Sainsbury, 1955; Stengel & Cook, 1961]; males have higher suicide rates than females [Durkheim, 1966; Farberow, 1968; Dublin, 1963; Litman, 1970]; whites kill themselves at higher rates than non-whites [U.S. Bureau of Vital Statistics, 1950-1964; Yahraes, 1969; Breed, 1970]; the unemployed tend to have higher rates than those employed [Ferrence, 1975]. Many suicides are noted for their past history of excessive alcohol consumption [Rushing, 1968]. Those who stay married are less prone to take their own lives

than other statuses [Durkheim, 1966; Whitlock & Edwards, 1965, Dublin, 1967]. Many suicides have received prior psychiatric help [Motto & Green, 1958]. Socially-isolated persons tend to have higher rates of suicide than those who are socially well-adjusted [Sainsbury, 1955; Farberow & Schneidman, 1961; Stengel, 1964]. Those who are married with children have lower suicide rates than those married but childless [Durkheim, 1951; Dublin, 1967; Yahraes, 1969].

The list, of course, appears to be continuous as literally thousands of articles and books have been published on the subject. However, some real concerns have been raised by various social scientists regarding the definition of suicide and the adequacy of suicide data collection.

## Defining Suicide

Social science researchers have been unable to define suicide in a manner agreeable to all. Stengel suggests that suicide is "the fatal act of self-injury undertaken with conscious self-destructive intent, however vague and ambiguous" [Stengel, 1964, p. 12]. Durkheim describes suicide as "all causes of death resulting directly or indirectly from a positive or negative act of the victim himself, which he knows will produce the result" [Durkheim, 1966, p. 44]. Cavan states that suicide is the "intentional taking of one's life or

failure when possible to save oneself when death threatens" [Cavan, 1928, p. 3].

This apparent lack of consensus among researchers creates very real problems, especially when the researcher's definition of suicide does not concur with the legal definition that is employed by the state or country. Operationalization of the research definition, when applied to suicide statistics for various regions throughout the world, is difficult when the legal parameters or definition of suicide for each area is unknown.

The results are statistics that may be questioned for their validity and reliability. Similarly, governments that provide official suicide statistics to be analyzed by other public or private researchers do not always supply their current legal definitions of suicide. Hence, the researcher consciously or unconsciously finds himself comparing apples to oranges rather than apples to apples.

Some of the most ardent opposition to the use of offical suicide statistics are found in the writings of Douglas, who states:

> We shall never be very sure about the reliability of the official statistics, and certainly not about their validity until a great many good studies have been made of the methods used by officials to categorize deaths, their assumptions, their methods of collecting data and tabulating it, and of the "real" community rates of suicide [Douglas, 1967, p. 297].

Other researchers (Stengel, 1964; Farberow, 1968; Atkinson, 1978) point out the inherent difficulties of using official suicide statistics. In 1968, the following warning was published by the World Health Organization:

> The true incidence of suicide is hard to ascertain. Varying methods of certifying causes of death, different registration and coding procedures, and other factors affect the extent and completeness of coverage making international comparisons impractical [World Health Organization, 1968].

Labovitz supports these findings and stresses that there are at least four arguments why official suicide statistics should be "interpreted with skepticism and caution." First, in areas where a certain stigmatization is attached to suicide, either legally or socially, significant under-reporting should be expected. Secondly, coroners and physicians are not necessarily guided by the same definition of suicide that the researcher may employ. Thirdly, census records may prove inconsistent with death-record identification. For example, a farm laborer listed in the census may appear as a farmer on the death record. Where such errors are frequent, the very reliability of the census records becomes questionable. Lastly, he points out the increasing problem of dealing with equivocal suicides or deaths that are difficult to categorize, as being due to suicide or possibly some other mode of death [Labovitz, 1968, pp. 58-60].

Although social scientists have condemned official suicide statistics and view them as quite meaningless, other researchers have defended their usage (Gibbs, 1968 and 1971) or have sought alternate methods of obtaining statistics that will be meaningful (Breed, 1963; Maris, 1969; Barraclough, et al., 1967).

Gibbs, taking the defensive for suicide statistics, suggests that

> All things considered, present knowledge precludes an adequate evaluation of official suicide statistics. Probably they are not very accurate but the amount of error is another question.

Gibbs is able to reach this conclusion after applying Durkheim's definition of suicide to each coroner's report of death in New Zealand from 1946 to 1951. He points out that over this six-year period, there were less estimated suicides (955) as compared to official suicide statistics (1036) [Merton, 1968, p. 228].

However, Gibbs admits that suicide statistics are sometimes questionable, but maintains that social research should be concerned with "relative reliability" or the "degree to which the amount of error in rates is a constant from one population to the next." As far as a variation in the rate is concerned, the central question is relative and not absolute reliability [Ibid., pp. 225-229]. Gibbs concludes in his later writings that as far as official suicide statistics are concerned, "there is no feasible alternative" [Gibbs, 1971, p. 278].

However, some sociologists have delved into sources other than official suicide statistics (Breed, 1963; Maris, 1969). Although these researchers examined death certificates, coroners' reports, and interviewed relatives and friends of suicide victims in order to produce more accurate suicide statistics, they are sometimes criticized for their results. For example, Douglas criticizes the Breed interview study (1967) by saying that:

> The first finding of Breed's interview approach was that the official reports on occupations, marital status, and unemployment-employment of these 103 suicides were very much in error. In terms of employment and types of employment there seems to have been a very significant tendency for the official reports to overestimate the social prestige ranking held by the suicide. When one considers the strong possibility that the significant others interviewed by Breed may have also overestimated in this way, we have a strong bit of information against the use of national official data [Douglas, 1967, p. 120].

Douglas's preoccupation with discrediting suicide statistics perhaps obscured his vision to the real intent of Breed's work: to examine the official sources instead of the official statistics. Other researchers in the study of suicide (Barraclough, et al., 1967; Jacobs, 1967) as well as researchers in other areas such as crime and deviance (Box, 1971), and anthropology (Firth, 1961) have conducted studies designed at improving upon data obtained from official sources, rather than working with statistics of a questionable nature.

Atkinson views studies such as Barraclough's as being concerned with the contents of the coroners' records rather than the decisions made by the coroners as to which deaths are classified as suicides. In Atkinson's opinion, it seems more advantageous to look to official sources than official statistics if something more is to be accomplished than merely analyzing official statistics [Atkinson, 1978, pp. 33-36].

## Equivocal Suicides

Equivocal suicides is a term used to describe cases that may or may not be an actual suicide. Although suicide is a distinct possibility, other causes of death cannot be ruled out.

Litman, et al. (1963) conducted a study in the Los Angeles area where they found that of the 50,000 deaths each year, approximately 10,000 were referred to the medical examiner for special examination. Out of this number, approximately 1000 were certified as suicides with about 100 of these listed as equivocal suicides. Information on the deceased was often sparse.

Police interest in deaths, especially if the possibility of homicide was ruled out, was reflected in their lethargic investigations and reports of varying completeness. It was also noted that due to the traumatic experience of the death, the deceased's friends and

relatives were often incapable of rendering objective, non-distorted information on the victim [Litman, 1963, pp. 924-929]. "The success or failure in the recognition of the real incidence of suicide often rests squarely upon police investigators, not upon the medical profession" [Davis & Spelman, 1968, p. 457].

The following cases are examples of deaths that have possibilities of being classified as either accidental or suicide:

> CASE 1--The engineer of a train that killed a man at about 1 AM reported that it seemed to him that the victim had kneeled down on the tracks in an attitude of prayer, facing the train. Based on this, the death was tentatively classified as suicide. Further investigation revealed that this victim was a happy and contented alcoholic. On the night of his death he had followed his usual, nightly pattern of getting drunk on wine, purchased at a nearby liquor store, and stumbling homeward on a shortcut path which led across the railroad tracks. The blood alcohol level in the victim's blood was extremely high. Recommendation: accident.
>
> CASE 2--Another man was killed when his car was struck by a train in the afternoon. Witnesses said that it seemed to them that he had stopped the car on the tracks and waited for the train. Investigation revealed that this intersection was not on the patient's regular route home from his office. It turned out, moreover, that on this day he had not gone to his office at all, an omission which was very unusual for him. Then it was learned that he had been having marital difficulties and had consulted a physician for symptoms suggestive of depression. Recommendation: suicide [Litman, 1963, pp. 927-928].

## Summary

Post-Durkheimian literature pertinent to marital status and suicide focuses on the concepts of status integration and strength of relational systems. The former refers to the ability of individuals to conform to the general requirements or patterns of their marital status, while the latter stresses strong relationships within marriage. The more integrated they become or the more stable the relationship, the less likely suicide will occur.

The validity and reliability of suicide statistics is a real concern for many social scientists. Achieving consensus on a common definition of suicide has plagued researchers. Accuracy of records and equivocal deaths also dilute the credibility of the data. For the present, while research tools are being improved, we must be content with relative and not absolute reliability.

# CHAPTER IV

# METHODOLOGY

## The Alberta Data

The data provide case histories of 1,147 individuals who were certified by the Alberta Coroner's Office as suicides while living in Alberta between and including the years 1968 and 1973.

It is important to remember this figure is only as accurate as the coroners who certified them. Clearly, not all coroners' inquiries will provide information that will positively identify a death as suicide. Consequently, some suicides may be certified as accidental, i.e., autocides. It is assumed, however, that coroners maintain a certain degree of consistency by following a general format of investigation.

Suicide statistics may not reflect actual numbers of suicides due to efforts made by the victim, friends, relatives, or institutions. For instance, the victim or relative may wish to disguise the mode of death in order to benefit from an insurance policy. An institution such as a rest home for the elderly may wish to conceal suicide as the actual cause of death in order to maintain a good reputation. Such possibilities suggest that the

present data are only reflective of an even greater suicide population.

Data Analysis

The data are arranged and examined by marital status. Discussions of marital status in the past have included four categories: single, married, widowed, and divorced. Due to the rapid rise in divorce rates and a softening of strict legal and moral codes regarding the primacy of the family unit, two more statuses, the separated and common-law, have emerged.

Because every recorded suicide for the given six-year period was involved, a universe rather than a sample may be assumed. Consequently, any differences that may exist between any of the included variables may be regarded as significant. This universe may also be considered a sample of a larger hypothetical universe. We can assume that universe of the study (suicide in Alberta 1968-1973) to be a sample of a larger universe where, with conditions similar to those in Alberta, it would result in the same findings.

Cross-tabulations were used with chi-square as the test of significance of the relationship between the variables. Where $P \leq .05$ the association was interpreted as significant. Cramer's V was used to measure the strength of the association. Summary tables are provided for chi-square associations between marital status and

illness behavior variables controlling for age and sex. Where expected cell frequencies were less than five to ten, marital status categories and/or age groups were collapsed. It is expected that in comparison to unmarried suicides, people who are married and commit suicide will report similar if not higher measurements of illness behavior.

# CHAPTER V

## FINDINGS

Over two-thirds of the suicides were either single or married persons, with the separated, widowed, common-law, and divorced comprising the remaining third. Another 3.8, or 44 cases, were not available.

TABLE 1

MARITAL STATUS* FOR ALBERTA SUICIDES
1968-1973
(in frequencies)

| | Absolute Freq. | Adjusted Freq. (%) | Cumulative Freq. (%) |
|---|---|---|---|
| Single (S.) | 365 | 33.1 | 33.1 |
| Married (Md.) | 446 | 40.4 | 73.5 |
| Widowed (Wid.) | 71 | 6.4 | 79.9 |
| Divorced (Div.) | 40 | 3.5 | 83.4 |
| Separated (Sep.) | 130 | 12.0 | 95.4 |
| Common-law (C-law) | 51 | 4.6 | 100.0 |
| | 1103 | 100.0 | |

* Provincial Coroner's Data

In absolute figures, marrieds had the greatest number of suicides but single persons are at a greater

risk. Similarly, while the widowed and divorced represent merely 9.7 percent of the actual deaths, their rates of suicide are the highest amongst the statuses. The separated and common-law statuses reflect a similar picture (see Table 2), low in numbers but high in rates of suicide.

TABLE 2

SUICIDAL DEATHS AND RATES* BY MARITAL STATUS, ALBERTA, 1968-1973**

| Status*** | Number | Rate |
|---|---|---|
| Single | 365 | 20.7 |
| Married | 446 | 10.1 |
| Widowed | 71 | 19.3 |
| Divorced | 40 | 31.5 |

* Rates per 100,000 population
** Provincial Coroner's Data
*** Rates calculated on basis of population aged 15 years and over

Age

The average age of the victims was 40.4: the youngest age recorded was twelve, while the oldest was 99. The greatest percentage of suicides (37.7) occurred in the 25-44 age group, while the smallest percentage (8.5) was found in the 65-and-older category (see Table 3).

The singles group (58.4) was expectedly higher in suicides in the 0-24 age category as generally most people had yet to enter the marriage bond or leave it via

TABLE 3

PERCENTAGE OF ALBERTA SUICIDES BY THEIR AGE AND MARITAL STATUS

| Age | Marital Status | | | | | | |
|---|---|---|---|---|---|---|---|
| | Md. | S. | Wid. | Div. | Sep. | C-law | Total N |
| 0-24 | 6.1 | 58.4 | 2.8 | 5.0 | 13.8 | 27.5 | 276 |
| 25-44 | 42.7 | 26.0 | 7.0 | 60.0 | 53.1 | 62.7 | 415 |
| 45-64 | 43.4 | 10.4 | 42.3 | 35.0 | 30.0 | 5.9 | 317 |
| 65-over | 7.8 | 5.2 | 47.9 | 0.0 | 3.1 | 3.9 | 94 |
| Total % | 100 | 100 | 100 | 100 | 100 | 100 | |
| N | 445 | 365 | 71 | 40 | 130 | 51 | 1102 |

separation, divorce, or widowhood. The common-law (62.7) and divorced (60.0) dominated the 25-44 age group, while the married (43.4) and widowed (42.3) ranked the highest in the 45-64 age category. Lastly and perhaps most expectedly, the widowed (47.9) led the 65-and-over group by more than twice the combined total of all other statuses.

Sex

Breakdown by sex reveals that of the 1,102 cases of suicide from 1968 through 1973, 76.7 percent were male while 23.3 percent were females. Historically males have consistently maintained a much higher rate of suicide than females. However, in the past fifteen years, rates

for females have been increasing more rapidly than for males (see Table 4).

TABLE 4

RATES* OF SUICIDE BY SEX AND YEAR, ALBERTA, 1968-1974**

| Year | Female | Male | Total |
|---|---|---|---|
| 1968 | 5.2 | 15.6 | 10.5 |
| 1969 | 6.6 | 19.3 | 12.5 |
| 1970 | 5.9 | 19.4 | 12.7 |
| 1971 | 5.0 | 18.2 | 11.7 |
| 1972 | 5.4 | 19.9 | 12.8 |
| 1973 | 6.1 | 19.3 | 12.8 |
| 1974 | 9.5 | 23.5 | 16.6 |

* Rates per 100,000 population
** Provincial Coroner's Data

We see that while the overall pattern indicates a ratio of three males to one female, such is not the case by individual marital status as shown in Table 5.

The data indicate that separated males are over eight times more prone to suicide than their female counterparts. The divorced and widowed males are only 1.5 times more prone than their female counterparts, while married and single males are twice as prone, and common-law are 2.5 times more likely to kill themselves.

Overall for the age and sex categories certain expected patterns emerge. People who were married tended

TABLE 5

PERCENTAGE OF ALBERTA SUICIDES BY THEIR SEX AND MARITAL STATUS

| Sex | Marital Status | | | | | | |
|---|---|---|---|---|---|---|---|
| | Md. | S. | Wid. | Div. | Sep. | C-law | Total N |
| Male | 70.2 | 85.8 | 59.2 | 60.0 | 89.2 | 72.5 | 845 |
| Female | 29.8 | 14.2 | 40.8 | 40.0 | 10.8 | 27.5 | 257 |
| Total % | 100 | 100 | 100 | 100 | 100 | 100 | |
| N | 445 | 365 | 71 | 40 | 130 | 51 | 1102 |

to kill themselves during the productive years, while suicide for those who were single was concentrated primarily upon the youth. People who were widowed killed themselves during the later years of life, while persons in what appears to be the less stable marital statuses --the divorced, separated, and common-law--were grouped heavily in the young adult years.

## Illness Behavior Variables

A history of mental illness. The findings indicate a moderate association between marital status and those reporting a history of mental disorder. Among those who were married, nearly two-thirds (65.5) reported a history of mental illness (see Table 6).

Percentage differences reveal that 18.3 percent more people which were married reported a history of

mental illness than did people classified as common-law, 17.1 percent more than people who were separated, and 15.5 percent more than people widowed. However, the married group had only 9.2 percent more than the people who were never married and 5.5 percent more than people divorced.

TABLE 6

ASSOCIATION BETWEEN MARITAL STATUS AND HISTORY OF MENTAL ILLNESS FOR ALBERTA SUICIDES

| History of Mental Illness (%) | Marital Status | | | | | | |
|---|---|---|---|---|---|---|---|
| | Md. | S. | Wid. | Div. | Sep. | C-law | Total N |
| Yes | 65.5 | 56.3 | 50.0 | 60.0 | 48.4 | 47.2 | 440 |
| No | 34.5 | 43.7 | 50.0 | 40.0 | 51.6 | 52.8 | 312 |
| Total %* | 100 | 100 | 100 | 100 | 100 | 100 | |
| N | 313 | 245 | 40 | 25 | 93 | 36 | 752 |

* Any deviation from 100 is due to rounding error.

$X^2$ = 13.80 with 5 degrees of freedom
P = .0169
V = .305

The fact that a moderate association exists between marital status and mental disorder, and that people who were married reported the greatest percentage of their group within this category, is noteworthy. From Durkheim's position we should expect to see people who are married reporting less mental disorder relative to the other marital statuses. However, as age and sex variables are introduced, the association established between

marital status and history of mental disorders appears to dissolve, as seen in Table 7.

TABLE 7

SUMMARY OF CHI-SQUARE ASSOCIATIONS BETWEEN MARITAL STATUS AND HISTORY OF MENTAL DISORDER CONTROLLING FOR AGE AND SEX, FOR ALBERTA SUICIDES

| Age | Male | Age | Female |
|---|---|---|---|
| 0-24 | $X^2 = 2.99$ | 0-44 | $X^2 = .13$ |
| 25-44 | $X^2 = 1.83$ | | |
| 45-64 | $X^2 = 2.46$ | 45-65+ | $X^2 = 1.17$ |
| 65+ | $X^2 = .60$ | | |

* $P \leq .05$

The chi-squares generated were of a size to be of no statistical significance or association (see Tables 18-23, Appendix).

Being treated by a doctor. The findings suggest a fairly weak-to-moderate association between marital status and those reporting being treated by a doctor. Again, among those who were married nearly two-thirds (64.1) reported being treated by a doctor ( see Table 8).

This large figure being treated by a doctor for those who were married is greater than any of those of other marital statuses. In percentage differences, 35.8 percent more people who were married reported being

TABLE 8

ASSOCIATION BETWEEN MARITAL STATUS AND BEING TREATED BY A DOCTOR, ALBERTA SUICIDES

| Being Treated by a Doctor (%) | Marital Status | | | | | | |
|---|---|---|---|---|---|---|---|
| | Md. | S. | Wid. | Div. | Sep. | C-law | Total N |
| Yes | 64.1 | 38.2 | 58.1 | 52.2 | 28.3 | 28.6 | 376 |
| No | 35.9 | 61.8 | 41.9 | 47.8 | 71.7 | 71.4 | 407 |
| Total %* | 100 | 100 | 100 | 100 | 100 | 100 | |
| N | 306 | 270 | 43 | 23 | 99 | 42 | 783 |

* Any deviation from 100 is due to rounding error.

$X^2$ = 65.79 with 5 degrees of freedom
P = .0000
V = .289

treated by a doctor than did people separated, 35.5 percent more than people who lived common-law, and 25.9 percent more than persons who were single. On the other hand, those married showed only 11.9 percent more than those who were divorced, and a mere 6.0 percent more than people who were widowed.

According to the literature, people who are married should reflect the healthiest marital status. The findings suggest the opposite. It appears that people who were married were also the most prone to require some form of medical attention.

As age and sex variables are introduced (see Table 9 and Tables 24-28, Appendix) we see that the

association between marital status and treatment is limited to a specific age-sex grouping.

TABLE 9

SUMMARY OF CHI-SQUARE ASSOCIATIONS BETWEEN MARITAL STATUS AND BEING TREATED BY A DOCTOR CONTROLLING FOR AGE AND SEX, FOR ALBERTA SUICIDES

| Age | Male | Age | Female |
|---|---|---|---|
| 0-24 | $X^2 = .274$ | 0-44 | $X^2 = 4.83$ |
| 25-44 | $X^2 = 3.34$ | | |
| 45+ | $X^2 = 11.93^*$ | 45+ | $X^2 = .003$ |

* $P \leq .05$

Married males who were 45 years of age and over reported a fairly weak association to being treated by a doctor. There were 9.0 percent more married males 45 and over receiving treatment from a doctor than single males of the same age group. A much larger percentage (27.6) of married males in this age group were treated by a doctor than widowed, divorced, or separated males in the same age category (see Table 26 in the Appendix).

Being treated by a doctor for mental disorders. Again, the findings indicate a weak-to-moderate association between marital status and being treated by a doctor for mental disorders. Although just over half (51.3) of those in the married group reported treatment

by a doctor for mental problems, they were next to the lowest group (widowed, 40.9) reporting this behavior, as seen in Table 10, below.

TABLE 10

ASSOCIATION BETWEEN MARITAL STATUS AND BEING TREATED BY A DOCTOR FOR MENTAL DISORDERS, ALBERTA SUICIDES

| Being Treated by a Doctor for Mental Disorders (%) | Marital Status | | | | | |
|---|---|---|---|---|---|---|
| | Md. | S. | Wid. | Div./Sep. | C-law | Total N |
| Yes | 51.3 | 68.8 | 40.9 | 65.7 | 54.5 | 211 |
| No | 48.7 | 31.2 | 59.1 | 34.3 | 45.5 | 157 |
| Total %* | 100 | 100 | 100 | 100 | 100 | |
| N | 191 | 109 | 22 | 35 | 11 | 368 |

* Any deviation from 100 is due to rounding error.

$X^2$ = 12.17 with 4 degrees of freedom
P = .032
V = .285

People who were single reported the greatest percentage (68.8) of any marital status with this behavior. Those who were single, divorced and separated, and common-law had respectively 17.5 percent, 14.4 percent, and 3.2 percent more persons reporting being treated by a doctor for mental disorder than people who were married. Similarly, the age-sex categories fail to report any significant associations between marital status and being treated by a doctor for mental problems (see Table 11 and Tables 29-32, Appendix).

TABLE 11

SUMMARY OF CHI-SQUARE ASSOCIATIONS BETWEEN MARITAL STATUS AND BEING TREATED BY A DOCTOR FOR MENTAL DISORDERS CONTROLLING FOR AGE AND SEX, FOR ALBERTA SUICIDES

| Age | Male | Age | Female |
|---|---|---|---|
| 0-44 | $X^2$ = .23 | 0-44 | $X^2$ = 1.15 |
| 45+ | $X^2$ = 2.05 | 45+ | $X^2$ = .08 |

* $P \leq .05$

Hospitalization. The findings suggest a weak-to-fairly-moderate association between marital status and hospitalization. Over half (52.2) of the married group reporting indicated they had been hospitalized, were hospitalized at the time of their deaths, or were very soon to be hospitalized. This percentage is greater than any other status (see Table 12).

While only 5.8 percent more people who were married were hospitalized than persons widowed, this figure sharply increases as we examine the other marital statuses: 14.1 percent more than those divorced; 23.3 percent more than persons separated; 23.7 percent more than those single; and 34.3 percent more than those classified as common-law.

Initially, these percentages appear to refute the body of literature that describes people who are married

TABLE 12

ASSOCIATION BETWEEN MARITAL STATUS AND HOSPITALIZATION FOR ALBERTA SUICIDES

| Hospitalization (%) | Marital Status | | | | | | |
|---|---|---|---|---|---|---|---|
| | Md. | S. | Wid. | Div. | Sep. | C-law | Total N |
| Yes | 52.2 | 28.5 | 46.4 | 38.1 | 29.0 | 17.9 | 284 |
| No | 47.8 | 71.5 | 53.6 | 61.9 | 71.0 | 82.1 | 485 |
| Total %* | 100 | 100 | 100 | 100 | 100 | 100 | |
| N | 308 | 260 | 41 | 21 | 100 | 39 | 769 |

* Any deviation from 100 is due to rounding error.

$X^2$ = 41.13 with 5 degrees of freedom
P = .000
V = .263

as the healthiest group among the marital statuses. Controlling for age and sex, however, we see that the association between marital status and hospitalization fails to produce significant findings (see Table 13 and Tables 33-38, Appendix).

Hospitalization for mental disorders. The findings indicate a moderate assocation between marital status and hospitalization for mental disorders. Similar to those being treated by a doctor for mental problems, a substantial number (64.7) of people who were married or common-law were hospitalized for mental problems. This figure, however, once again ranks next to the lowest group (widowed, 50.0) reporting this behavior (see Table 14).

TABLE 13

SUMMARY OF CHI-SQUARE ASSOCIATIONS BETWEEN MARITAL STATUS AND HOSPITALIZATION CONTROLLING FOR AGE AND SEX, ALBERTA SUICIDES

| Age | Male | Age | Female |
|---|---|---|---|
| 0-24 | $X^2$ = ** | 0-44 | $X^2$ = 4.93 |
| 25-44 | $X^2$ = 1.13 | | |
| 45-64 | $X^2$ = 4.01 | 45-65+ | $X^2$ = .55 |
| 65+ | $X^2$ = .13 | | |

* None are significant at $P \leq .05$
** Insufficient data

TABLE 14

ASSOCIATION BETWEEN MARITAL STATUS AND HOSPITALIZATION FOR MENTAL DISORDERS, FOR ALBERTA SUICIDES

| Hospitalization for Mental Disorders (%) | Marital Status | | | | |
|---|---|---|---|---|---|
| | Md./ C-law | S. | Wid. | Div./ Sep. | Total N |
| Yes | 64.7 | 79.4 | 50.0 | 67.6 | 196 |
| No | 35.3 | 20.6 | 50.0 | 32.5 | 92 |
| Total %* | 100 | 100 | 100 | 100 | |
| N | 153 | 78 | 20 | 37 | 288 |

* Any deviation from 100 is due to rounding error.

$X^2$ = 8.51 with 3 degrees of freedom
P = .0287
V = .334

People who were single reported the greatest percentage (79.4) of any marital status with this behavior. Also those who were divorced or separated reported a smaller percentage (2.9) of their group being hospitalized for mental disorders than those who were married. Once again the age-sex categories fail to yield any significant associations between marital status and being hospitalized for mental disorders (see Table 15 and Tables 39-42, Appendix).

TABLE 15

SUMMARY OF CHI-SQUARE ASSOCIATIONS BETWEEN MARITAL STATUS AND HOSPITALIZATION FOR MENTAL DISORDERS CONTROLLING FOR AGE AND SEX, ALBERTA SUICIDES

| Age | Male | Age | Female |
|---|---|---|---|
| 0-44 | $X^2 = 1.33$ | 0-44 | $X^2$ = ** |
| 45+ | $X^2 = .33$ | 45+ | $X^2 = .05$ |

* $P \leq .05$
** Insufficient data

Little or no relationships to significant others. The final illness behavior variable to be dealt with is the amount of relationships between the marital statuses and significant others. The term "significant other" is generally defined to mean other people in an individual's life who offer some form of meaningful relationship to that person. From the body of literature presented, we

can understand the importance of the significant other and the role it plays upon another person's social-psychological well-being. The findings indicate a moderate association between marital status and little or no relationships to significant others, as shown in Table 16.

TABLE 16

ASSOCIATION BETWEEN MARITAL STATUS AND LITTLE OR NO RELATIONSHIPS TO SIGNIFICANT OTHERS FOR ALBERTA SUICIDES

| Little or No Relationships (%) | Marital Status | | | | | | |
|---|---|---|---|---|---|---|---|
| | Md. | S. | Wid. | Div. | Sep. | C-law | Total N |
| Yes | 50.7 | 56.1 | 27.3 | 42.3 | 1.6 | 17.5 | 329 |
| No | 49.3 | 43.9 | 72.7 | 57.7 | 98.4 | 82.5 | 474 |
| Total %* | 100 | 100 | 100 | 100 | 100 | 100 | |
| N | 361 | 198 | 55 | 26 | 123 | 40 | 803 |

* Any deviation from 100 is due to rounding error.

$X^2$ = 124.79 with 5 degrees of freedom
P = .0134
V = .368

Although people who were single reported the greatest percentage (56.1) of their group as having little or no relationships with their significant others, those married also reported approximately half (50.7) with the same behavior. The married group reported 8.4 percent more people with little or no relationships with significant others than those divorced, 23.4 percent more

than those widowed, and 33.2 percent more than people who were separated.

The disparity in the above comparisons is most interesting. It would appear that people who are married would have greater opportunity to develop significant-other relationships than non-married persons. The data suggests the opposite for the Alberta suicide population.

Controlling for age and sex, it appears that married and common-law males between the ages of 45 and 64 years report a fairly strong association with having little or no relationships to significant others (see Table 17 and Tables 43-48, Appendix).

TABLE 17

SUMMARY OF CHI-SQUARE ASSOCIATIONS BETWEEN MARITAL STATUS AND LITTLE OR NO RELATIONSHIPS TO SIGNIFICANT OTHERS CONTROLLING FOR AGE AND SEX, ALBERTA SUICIDES

| Age | Male | Age | Female |
|---|---|---|---|
| 0-24 | $X^2$ = .41 | 0-44 | $X^2$ = 5.25 |
| 25-44 | $X^2$ = .20 | | |
| 45-64 | $X^2$ = 51.61* | 45-65+ | $X^2$ = 1.20 |
| 65+ | $X^2$ = .703 | | |

* $P \leq .05$

Although it is important to recognize that males who were single in this age bracket reported the greatest percentage as having little or no relationships to significant others (80.0), those who were married or common-law reported 52.3 percent more than the widowed, divorced, or separated. This may be explained in part by the notion that some males experience a mid-life crisis caused by a lacklustre marriage, dissatisfaction with employment status, or a sense of despair in ever reaching personal goals. Such problems may culture disharmony in the home, a change of careers, or foster feelings of confinement and loss of personal freedoms.

Although the findings for females between the ages of zero and 44 were not found to be statistically significant, it does merit some note due to the size of the chi-square and size of cell frequencies. While approximately a third (35.7) of married and common-law females were reported as having little or no relationships with significant others, they had 21.4 percent more reporting this behavior than the rest of the marital statuses.

# CHAPTER VI

## DISCUSSION AND CONCLUSION

In summary, people who were married and killed themselves appeared to be more prone to a history of mental disorders than any other marital status. This moderate association, however, did not remain when age and sex were controlled for, which suggests no relationship between marital status and history of mental illness.

Second, people who were married were slightly below the marital status average for receiving treatment from a doctor for mental disorders. This association disappeared when age and sex controls were introduced. Third, people who were married were approximately at the average of the marital statuses for being hospitalized for mental disorders. Once again, age and sex controls failed to support this association between marital status and hospitalization for mental illness.

Fourth, people who were married were more prone to seek medical care than any other status. When age and sex were controlled for, this association was supported by middle-aged-to-elderly males. Fifth, people who were married also tended to be hospitalized more than any other

status; but again, as age and sex controls were applied, the association appeared to dissolve, suggesting no relationship. Finally, a moderate association between marital status and little or no relationships to significant others was established. Those who were married were next to the singles groups in reporting the least amount of relationships to significant others. This association was found to be particularly strong for males in the 45-64 age group.

The data support in part the stated hypothesis that people who are married and commit suicide will report similar if not higher measurements of illness behavior compared to unmarried suicides. Several of the associations presented appear to have no relationship. The data, however, do indicate that older married males tend to be treated by doctors more and that middle-aged married males report lower measures of relationships to significant others.

When age and sex controls are introduced, the relationships between marital status and the illness behavior variables tend to disappear. However, the reporting of no relationship is significant in that it supports the hypothesis that people who were married would report similar if not higher measures of illness behavior. Consequently, the findings fail to support the Durkheimian hypothesis that all people who are married enjoy matrimonial immunity to suicide.

The fact that older married males tended to receive more medical attention is not particularly alarming. Still, we might have expected these men to have received more home care and less formal treatment in contrast to non-married males. It is of special interest that the middle-aged married males experienced such aloneness, at least psychologically. It is disconcerting that the unity, friendship, closeness, and love expected in marriage failed to materialize for some. It would appear that for someone contemplating suicide, the availability of a close, trusted person such as a spouse to communicate with in times of crisis may be a crucial factor in survival.

Chan [1977] explains the importance of the availability of significant others:

> The presence of profound ties to concrete others implies the existence of a network of pleasant primary relations, which is a potential, always available, reservoir of social resources from which the individual can seek help or support in times of crisis. The mere knowledge of the existence of these resources, either actual or imagined, affects the individual's perception of the stressfulness of threats and his assessment of his own capacity to cope or resolve. In a sense, social resources are protective of the implicated individual and render him relatively immune to environment onslaughts.

Consequently, the immunity shared by married persons may continue, but those who enjoy it may be fewer. The rising divorce rates, the softened social attitude toward divorce, society's experimentation in conjugal living, and the added pressure placed on individuals in

an accelerating technological society each erases, in its own way, the availability and benefits of primary relations.

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# APPENDIX

TABLE 18

ASSOCIATION BETWEEN MARITAL STATUS AND HISTORY OF MENTAL ILLNESS FOR MALE ALBERTA SUICIDES 0-24 YEARS OF AGE

| History of Mental Illness (%) | Marital Status | | Total N |
|---|---|---|---|
| | Md./C-law | S./Wid./Div./Sep. | |
| Yes | 66.7 | 44.9 | 69 |
| No | 33.3 | 55.1 | 76 |
| Total % * | 100 | 100 | |
| N | 18 | 127 | 145 |

* Any deviation from 100 is due to rounding error.

$X^2$ = 2.99 with 1 degree of freedom
P = .143

TABLE 19

ASSOCIATION BETWEEN MARITAL STATUS AND HISTORY OF MENTAL ILLNESS FOR MALE ALBERTA SUICIDES 25-44 YEARS OF AGE

| History of Mental Illness (%) | Marital Status | | | Total N |
|---|---|---|---|---|
| | Md./C-law | S. | Wid./Div./Sep. | |
| Yes | 53.3 | 58.1 | 45.5 | 105 |
| No | 46.7 | 41.9 | 54.5 | 95 |
| Total % * | 100 | 100 | 100 | |
| N | 90 | 55 | 55 | 200 |

* Any deviation from 100 is due to rounding error.

$X^2$ = 1.831 with 2 degrees of freedom
P = .009
V = .096

TABLE 20

ASSOCIATION BETWEEN MARITAL STATUS AND HISTORY OF MENTAL ILLNESS FOR MALE ALBERTA SUICIDES 45-64 YEARS OF AGE

| History of Mental Illness (%) | Marital Status | | | Total N |
|---|---|---|---|---|
| | Md./C-law | S. | Wid./Div./Sep. | |
| Yes | 62.2 | 74.1 | 55.6 | 106 |
| No | 37.8 | 25.9 | 44.4 | 64 |
| Total % * | 100 | 100 | 100 | |
| N | 98 | 27 | 45 | 170 |

* Any deviation from 100 is due to rounding error.

$X^2$ = 2.465 with 2 degrees of freedom
P = .0142
V = .142

TABLE 21

ASSOCIATION BETWEEN MARITAL STATUS AND HISTORY OF MENTAL ILLNESS FOR MALE ALBERTA SUICIDES 65+ YEARS OF AGE

| History of Mental Illness (%) | Marital Status | | Total N |
|---|---|---|---|
| | Md./C-law | S./Wid./Div./Sep. | |
| Yes | 50.0 | 39.1 | 23 |
| No | 50.0 | 60.9 | 28 |
| Total % * | 100 | 100 | |
| N | 28 | 23 | 51 |

* Any deviation from 100 is due to rounding error.

$X^2$ = .602 with 1 degree of freedom
P = .1086

TABLE 22

ASSOCIATION BETWEEN MARITAL STATUS AND HISTORY OF MENTAL ILLNESS FOR FEMALE ALBERTA SUICIDES 0-44 YEARS OF AGE

| History of Mental Illness (%) | Marital Status | | Total N |
|---|---|---|---|
| | Md./C-law | S./Wid./Div./Sep. | |
| Yes | 75.4 | 72.3 | 86 |
| No | 24.6 | 27.7 | 30 |
| Total % * | 100 | 100 | |
| N | 69 | 47 | 116 |

* Any deviation from 100 is due to rounding error.

$X^2$ = .133 with 1 degree of freedom
P = .0338

TABLE 23

ASSOCIATION BETWEEN MARITAL STATUS AND HISTORY OF MENTAL ILLNESS FOR FEMALE ALBERTA SUICIDES 45+ YEARS OF AGE

| History of Mental Illness (%) | Marital Status | | Total N |
|---|---|---|---|
| | Md./C-law | S./Wid./Div./Sep. | |
| Yes | 77.1 | 61.5 | 54 |
| No | 22.9 | 38.5 | 20 |
| Total % * | 100 | 100 | |
| N | 48 | 26 | 74 |

* Any deviation from 100 is due to rounding error.

$X^2$ = 1.17 with 1 degree of freedom
P = .1257

TABLE 24

ASSOCIATION BETWEEN MARITAL STATUS AND BEING TREATED BY A DOCTOR FOR MALE ALBERTA SUICIDES 0-24 YEARS OF AGE

| Being Treated by a Doctor (%) | Marital Status | | Total N |
|---|---|---|---|
| | Md./C-law | S./Wid./Div./Sep. | |
| Yes | 20.8 | 25.8 | 44 |
| No | 79.2 | 74.2 | 131 |
| Total % * | 100 | 100 | |
| N | 24 | 151 | 175 |

* Any deviation from 100 is due to rounding error.

$X^2$ = .274 with 1 degree of freedom
P = .0395

TABLE 25

ASSOCIATION BETWEEN MARITAL STATUS AND BEING TREATED BY A DOCTOR FOR MALE ALBERTA SUICIDES 25-44 YEARS OF AGE

| Being Treated by a Doctor (%) | Marital Status | | | Total N |
|---|---|---|---|---|
| | Md./C-law | S. | Wid./Div./Sep. | |
| Yes | 35.7 | 39.3 | 24.1 | 76 |
| No | 64.3 | 60.7 | 75.9 | 136 |
| Total % * | 100 | 100 | 100 | |
| N | 98 | 56 | 58 | 212 |

* Any deviation from 100 is due to rounding error.

$X^2$ = 3.339 with 2 degrees of freedom
P = .0155
V = .126

TABLE 26

ASSOCIATION BETWEEN MARITAL STATUS AND BEING TREATED BY A DOCTOR FOR MALE ALBERTA SUICIDES 45+ YEARS OF AGE

| Being Treated by a Doctor (%) | Marital Status | | | Total N |
|---|---|---|---|---|
| | Md./C-law | S. | Wid./Div./Sep. | |
| Yes | 66.9 | 57.9 | 39.3 | 123 |
| No | 33.1 | 42.1 | 60.7 | 89 |
| Total % * | 100 | 100 | 100 | |
| N | 118 | 38 | 56 | 212 |

* Any deviation from 100 is due to rounding error.

$X^2$ = 11.930 with 2 degrees of freedom
P = .0532
V = .232

TABLE 27

ASSOCIATION BETWEEN MARITAL STATUS AND BEING TREATED BY A DOCTOR FOR FEMALE ALBERTA SUICIDES 0-44 YEARS OF AGE

| Being Treated by a Doctor (%) | Marital Status | | Total N |
|---|---|---|---|
| | Md./C-law | S./Wid./Div./Sep. | |
| Yes | 76.1 | 56.0 | 79 |
| No | 23.9 | 44.0 | 38 |
| Total % * | 100 | 100 | |
| N | 67 | 50 | 117 |

* Any deviation from 100 is due to rounding error.

$X^2$ = 4.83 with 1 degree of freedom
P = .021

TABLE 28

ASSOCIATION BETWEEN MARITAL STATUS AND BEING TREATED BY A DOCTOR FOR FEMALE ALBERTA SUICIDES 45+ YEARS OF AGE

| Being Treated by a Doctor (%) | Marital Status | | Total N |
|---|---|---|---|
| | Md./C-law | S./Wid./Div./Sep. | |
| Yes | 81.0 | 80.8 | 55 |
| No | 19.0 | 19.2 | 13 |
| Total % * | 100 | 100 | |
| N | 42 | 26 | 68 |

* Any deviation from 100 is due to rounding error.

$X^2$ = .0003 with 1 degree of freedom
P = .0022

TABLE 29

ASSOCIATION BETWEEN MARITAL STATUS AND BEING TREATED BY A DOCTOR FOR MENTAL DISORDER, FOR MALE ALBERTA SUICIDES 0-44 YEARS OF AGE

| Treated for Mental Disorder (%) | Marital Status | | | Total N |
|---|---|---|---|---|
| | Md./C-law | S. | Wid./Div./Sep. | |
| Yes | 67.4 | 71.6 | 68.8 | 88 |
| No | 32.6 | 28.4 | 31.2 | 38 |
| Total % * | 100 | 100 | 100 | |
| N | 43 | 67 | 16 | 126 |

* Any deviation from 100 is due to rounding error.

$X^2$ = .2295 with 2 degrees of freedom
P = .0018
V = .0442

TABLE 30

ASSOCIATION BETWEEN MARITAL STATUS AND BEING TREATED BY A DOCTOR FOR MENTAL DISORDER, FOR MALE ALBERTA SUICIDES 45+ YEARS OF AGE

| Treated for Mental Disorder (%) | Marital Status | | | Total N |
|---|---|---|---|---|
| | Md./C-law | S. | Wid./Div./Sep. | |
| Yes | 36.3 | 52.4 | 45.5 | 50 |
| No | 63.7 | 47.6 | 54.5 | 73 |
| Total % * | 100 | 100 | 100 | |
| N | 80 | 21 | 22 | 123 |

* Any deviation from 100 is due to rounding error.

$X^2$ = 2.052 with 2 degrees of freedom
P = .016
V = .131

TABLE 31

ASSOCIATION BETWEEN MARITAL STATUS AND BEING TREATED BY A DOCTOR FOR MENTAL DISORDER, FOR FEMALE ALBERTA SUICIDES 0-44 YEARS OF AGE

| Treated for Mental Disorder (%) | Marital Status | | Total N |
|---|---|---|---|
| | Md./C-law | S./Wid./Div./Sep. | |
| Yes | 60.9 | 73.9 | 45 |
| No | 39.1 | 26.1 | 24 |
| Total % * | 100 | 100 | |
| N | 46 | 23 | 69 |

* Any deviation from 100 is due to rounding error.

$X^2$ = 1.15 with 1 degree of freedom
P = .1290

TABLE 32

ASSOCIATION BETWEEN MARITAL STATUS AND BEING TREATED BY A DOCTOR FOR MENTAL DISORDER, FOR FEMALE ALBERTA SUICIDES 45+ YEARS OF AGE

| Treated for Mental Disorder (%) | Marital Status | | Total N |
|---|---|---|---|
| | Md./C-law | S./Wid./Div./Sep. | |
| Yes | 54.5 | 58.8 | 28 |
| No | 45.5 | 41.2 | 22 |
| Total % * | 100 | 100 | |
| N | 33 | 17 | 50 |

* Any deviation from 100 is due to rounding error.

$X^2$ = .083 with 1 degree of freedom
P = .0407

TABLE 33

ASSOCIATION BETWEEN MARITAL STATUS AND HOSPITALIZATION FOR MALE ALBERTA SUICIDES 0-24 YEARS OF AGE

| Hospitalization (%) | Marital Status | | | Total N |
|---|---|---|---|---|
| | Md./C-law | S. | Wid./Div./Sep. | |
| Yes | 9.5 | 67.6 | 14.3 | 27 |
| No | 90.5 | 32.4 | 85.7 | 42 |
| Total % * | 100 | 100 | 100 | |
| N | 21 | 34 | 14 | 69 |

* Any deviation from 100 is due to rounding error.

$X^2$ = Insufficient data

TABLE 34

ASSOCIATION BETWEEN MARITAL STATUS AND HOSPITALIZATION
FOR MALE ALBERTA SUICIDES
25-44 YEARS OF AGE

| Hospitalization (%) | Marital Status | | | |
|---|---|---|---|---|
| | Md./C-law | S. | Wid./Div./Sep | Total N |
| Yes | 28.7 | 35.2 | 26.3 | 61 |
| No | 71.3 | 64.8 | 73.7 | 144 |
| Total % * | 100 | 100 | 100 | |
| N | 94 | 54 | 57 | 205 |

* Any deviation from 100 is due to rounding error.

$X^2$ = 1.133 with 2 degrees of freedom
P = .005
V = .076

TABLE 35

ASSOCIATION BETWEEN MARITAL STATUS AND HOSPITALIZATION
FOR MALE ALBERTA SUICIDES
45-64 YEARS OF AGE

| Hospitalization (%) | Marital Status | | | |
|---|---|---|---|---|
| | Md./C-law | S. | Wid./Div./Sep. | Total N |
| Yes | 49.0 | 44.0 | 31.1 | 73 |
| No | 51.0 | 56.0 | 68.9 | 95 |
| Total % * | 100 | 100 | 100 | |
| N | 98 | 25 | 45 | 168 |

* Any deviation from 100 is due to rounding error.

$X^2$ = 4.01 with 2 degrees of freedom
P = .0233
V = .154

TABLE 36

ASSOCIATION BETWEEN MARITAL STATUS AND HOSPITALIZATION
FOR MALE ALBERTA SUICIDES
65+ YEARS OF AGE

| Hospitalization (%) | Marital Status | | | Total N |
|---|---|---|---|---|
| | Md./C-law | S. | Wid./Div./Sep. | |
| Yes | 60.0 | 58.3 | 53.8 | 29 |
| No | 40.0 | 41.7 | 46.2 | 21 |
| Total % * | 100 | 100 | 100 | |
| N | 25 | 12 | 13 | 50 |

* Any deviation from 100 is due to rounding error.

$X^2$ = .1336 with 2 degrees of freedom
P = .002
V = .053

TABLE 37

ASSOCIATION BETWEEN MARITAL STATUS AND HOSPITALIZATION
FOR FEMALE ALBERTA SUICIDES
0-44 YEARS OF AGE

| Hospitalization (%) | Marital Status | | | Total N |
|---|---|---|---|---|
| | Md./C-law | S. | Wid./Div./Sep. | |
| Yes | 61.5 | 38.2 | 50.0 | 60 |
| No | 38.5 | 61.8 | 50.0 | 53 |
| Total % * | 100 | 100 | 100 | |
| N | 65 | 34 | 14 | 113 |

* Any deviation from 100 is due to rounding error.

$X^2$ = 4.932 with 2 degrees of freedom
P = .0418
V = .206

TABLE 38

ASSOCIATION BETWEEN MARITAL STATUS AND HOSPITALIZATION
FOR FEMALE ALBERTA SUICIDES
45+ YEARS OF AGE

| Hospitalization (%) | Marital Status | | Total N |
|---|---|---|---|
| | Md./C-law | S./Wid./Div./Sep. | |
| Yes | 50.0 | 60.0 | 34 |
| No | 50.0 | 40.0 | 30 |
| Total % * | 100 | 100 | |
| N | 44 | 20 | 64 |

* Any deviation from 100 is due to rounding error.

$X^2$ = .552 with 1 degree of freedom
P = .0928

TABLE 39

ASSOCIATION BETWEEN MARITAL STATUS AND HOSPITALIZATION
FOR MENTAL DISORDERS FOR MALE ALBERTA SUICIDES
0-44 YEARS OF AGE

| Hospitalization for Mental Disorders (%) | Marital Status | | | Total N |
|---|---|---|---|---|
| | Md./C-law | S. | Wid./Div./Sep. | |
| Yes | 76.6 | 84.8 | 68.4 | 76 |
| No | 23.4 | 15.2 | 31.6 | 19 |
| Total % * | 100 | 100 | 100 | |
| N | 30 | 46 | 19 | 95 |

* Any deviation from 100 is due to rounding error.

$X^2$ = 1.33 with 2 degrees of freedom
P = .0139
V = .118

TABLE 40

ASSOCIATION BETWEEN MARITAL STATUS AND HOSPITALIZATION FOR MENTAL DISORDERS FOR MALE ALBERTA SUICIDES 45+ YEARS OF AGE

| Hospitalization for Mental Disorders (%) | Marital Status | | | Total N |
|---|---|---|---|---|
| | Md./C-law | S. | Wid./Div./Sep. | |
| Yes | 48.4 | 55.6 | 47.6 | 51 |
| No | 51.6 | 44.4 | 52.4 | 50 |
| Total % * | 100 | 100 | 100 | |
| N | 62 | 18 | 21 | 101 |

* Any deviation from 100 is due to rounding error.

$X^2$ = .325 with 2 degrees of freedom
P = .0032
V = .057

TABLE 41

ASSOCIATION BETWEEN MARITAL STATUS AND HOSPITALIZATION FOR MENTAL DISORDERS FOR FEMALE ALBERTA SUICIDES 0-44 YEARS OF AGE

| Hospitalization for Mental Disorders (%) | Marital Status | | Total N |
|---|---|---|---|
| | Md./C-law | S./Wid./Div./Sep. | |
| Yes | 71.1 | 83.3 | 42 |
| No | 28.9 | 16.7 | 14 |
| Total % * | 100 | 100 | |
| N | 38 | 18 | 56 |

* Any deviation from 100 is due to rounding error.

$X^2$ = Insufficient data

TABLE 42

ASSOCIATION BETWEEN MARITAL STATUS AND HOSPITALIZATION FOR MENTAL DISORDERS FOR FEMALE ALBERTA SUICIDES 45+ YEARS OF AGE

| Hospitalization for Mental Disorders (%) | Marital Status | | Total N |
|---|---|---|---|
| | Md./C-law | S./Wid./Div./Sep. | |
| Yes | 54.5 | 58.3 | 19 |
| No | 45.5 | 41.7 | 15 |
| Total % * | 100 | 100 | |
| N | 22 | 12 | 34 |

* Any deviation from 100 is due to rounding error.

$X^2$ = .045 with 1 degree of freedom
P = .0364

TABLE 43

ASSOCIATION BETWEEN MARITAL STATUS AND LITTLE OR NO RELATIONSHIPS TO SIGNIFICANT OTHERS FOR MALE ALBERTA SUICIDES 0-24 YEARS OF AGE

| Little or No Relationships (%) | Marital Status | | Total N |
|---|---|---|---|
| | Md./C-law | S./Wid./Div./Sep. | |
| Yes | 32.0 | 38.9 | 50 |
| No | 68.0 | 61.1 | 83 |
| Total % * | 100 | 100 | |
| N | 25 | 108 | 133 |

* Any deviation from 100 is due to rounding error.

$X^2$ = .410 with 1 degree of freedom
P = .0555

TABLE 44

ASSOCATION BETWEEN MARITAL STATUS AND LITTLE OR NO RELATIONSHIPS TO SIGNIFICANT OTHERS FOR MALE ALBERTA SUICIDES 25-44 YEARS OF AGE

| Little or No Relationships (%) | Marital Status | | Total N |
|---|---|---|---|
| | Md./C-law | S./Wid./Div./Sep. | |
| Yes | 33.0 | 30.3 | 75 |
| No | 67.0 | 69.7 | 162 |
| Total % * | 100 | 100 | |
| N | 115 | 122 | 237 |

* Any deviation from 100 is due to rounding error.

$X^2$ = .201 with 1 degree of freedom
P = .0291

TABLE 45

ASSOCIATION BETWEEN MARITAL STATUS AND LITTLE OR NO RELATIONSHIPS TO SIGNIFICANT OTHERS FOR MALE ALBERTA SUICIDES 45-64 YEARS OF AGE

| Little or No Relationships (%) | Marital Status | | | Total N |
|---|---|---|---|---|
| | Md./C-law | S. | Wid./Div./Sep. | |
| Yes | 60.9 | 80.0 | 8.6 | 95 |
| No | 39.1 | 20.0 | 91.4 | 103 |
| Total % * | 100 | 100 | 100 | |
| N | 115 | 25 | 58 | 198 |

* Any deviation from 100 is due to rounding error.

$X^2$ = 51.61 with 2 degrees of freedom
P = .0206
V = .456

TABLE 46

ASSOCIATION BETWEEN MARITAL STATUS AND LITTLE OR NO RELATIONSHIPS TO SIGNIFICANT OTHERS FOR MALE ALBERTA SUICIDES 65+ YEARS OF AGE

| Little or No Relationships (%) | Marital Status | | Total N |
|---|---|---|---|
| | Md./C-law | S./Wid./Div./Sep. | |
| Yes | 76.7 | 66.7 | 41 |
| No | 23.3 | 33.3 | 16 |
| Total % * | 100 | 100 | |
| N | 30 | 27 | 57 |

* Any deviation from 100 is due to rounding error.

$X^2$ = .703 with 1 degree of freedom
P = .1111

TABLE 47

ASSOCIATION BETWEEN MARITAL STATUS AND LITTLE OR NO RELATIONSHIPS TO SIGNIFICANT OTHERS FOR FEMALE ALBERTA SUICIDES 0-44 YEARS OF AGE

| Little or No Relationships (%) | Marital Status | | Total N |
|---|---|---|---|
| | Md./C-law | S./Wid./Div./Sep. | |
| Yes | 35.7 | 14.3 | 30 |
| No | 64.3 | 85.7 | 75 |
| Total % * | 100 | 100 | |
| N | 70 | 35 | 105 |

* Any deviation from 100 is due to rounding error.

$X^2$ = 5.25 with 1 degree of freedom
P = .2236

TABLE 48

ASSOCIATION BETWEEN MARITAL STATUS AND LITTLE OR NO RELATIONSHIPS TO SIGNIFICANT OTHERS FOR FEMALE ALBERTA SUICIDES 45+ YEARS OF AGE

| Little or No Relationships (%) | Marital Status | | Total N |
|---|---|---|---|
| | Md./C-law | S./Wid./Div./Sep. | |
| Yes | 57.8 | 44.4 | 38 |
| No | 42.2 | 55.6 | 34 |
| Total % * | 100 | 100 | |
| N | 45 | 27 | 72 |

* Any deviation from 100 is due to rounding error.

$X^2$ = 1.20 with 1 degree of freedom
P = .1292

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